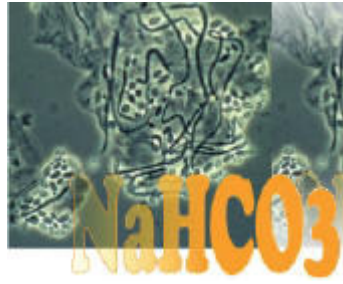


# Sodium Bicarbonate

## Lessons in Cancer and General pH Management



Most of us are going to be surprised to find out that there is an oncologist in Rome Italy, Doctor Tullio Simoncini, destroying cancer tumors with sodium bicarbonate.<sup>i</sup> Sodium bicarbonate is safe, extremely inexpensive and unstoppably effective when it comes to cancer tissues. It's an irresistible chemical, cyanide to cancer cells for it hits the cancer cells with a shock wave of alkalinity, which allows much more oxygen into the cancer cells than they can tolerate. Cancer cells cannot survive in the presence of high levels of oxygen. Sodium bicarbonate is, for all intent and purposes, an instant killer of tumors. Full treatment takes only days, as does another cancer treatment that heats the cancer cells with laser generated heat. (At bottom see combining ph shift with heat.)

*The extracellular (interstitial) pH (pHe) of solid tumours is significantly more acidic compared to normal tissues.<sup>ii</sup>*

**Case one:** A patient diagnosed with pulmonary neoplasm of the lung, underwent treatment with sodium bicarbonate, before submitting to surgery to remove part of the lung. Treatment consisted of sodium bicarbonate administered orally, by aerosol, and IV. After first treatment reduction of nodules and absorption was evident, and after 8 months was no longer visible at all. Treatments also reduced size of the live and results were confirmed by both X-ray and Cat scan.

Studies have shown how manipulation of tumour pH with sodium bicarbonate enhances some forms of chemotherapy.<sup>iii</sup> Proteins can be modified both in vivo and in vitro by increases in acidity. In fact pH is the regulatory authority that controls most cellular processes. The pH balance of the human bloodstream is recognized by medical physiology texts as one of the most important biochemical balances in all of human body chemistry. pH is the acronym for "Potential Hydrogen". In definition, it is the degree of concentration of hydrogen ions in a substance or solution. It is measured on a logarithmic scale from 0 to 14. Higher numbers means a substance is more alkaline in nature and there is a greater potential for absorbing more hydrogen ions. Lower numbers indicate more acidity with less potential for absorbing hydrogen ions.

Our body pH is very important because pH controls the speed of our body's biochemical reactions. It does this by controlling the speed of enzyme activity as well as the speed that electricity moves through our body. The higher (more alkaline) the pH of a substance or solution, the more electrical resistance that substance or solution holds. Therefore, electricity travels slower with higher pH. If we say something has an acid pH, we are saying it is *hot and fast*. Alkaline pH on the other hand, biochemically speaking, is *slow and cool*.

The IMVA recommends alkaline foods and sodium bicarbonate so that the pH of the blood remains high, which in turn means that the blood is capable of carrying more oxygen. This in turn keeps every cell in the body at peak efficiency and helps the cell eliminate waste products. Detoxification and chelation will proceed more easily and safely under slightly alkaline conditions. Increased urinary pH reduces oxidative injury in the kidney so it behooves us to work clinically with bicarbonate.

*Patients receiving sodium bicarbonate achieved urine pH's of 6.5 as opposed to 5.6 with those receiving sodium chloride. This alkalinization is theorized to have a protective effect against the formation of free-radicals that may cause nephropathy.<sup>iv</sup>*

*Dr. Michael Metro*

Body pH level changes are intense in the profundity of their biological effects. Even genes directly experience external pH. pH differentially regulates a large number of proteins. Increased oxidative stress, which correlates almost exponentially with pH changes into the acidic, is especially dangerous to the mitochondria, which suffer the greatest under oxidative duress.

*The great advantage of knowing the prime cause of a disease  
is that it can then be attacked logically and over a broad front.*

*Dr. Otto Warburg*

Dr. Otto Warburg, two times Nobel Prize winner, stated in his book, *The Metabolism of Tumors* that the primary cause of cancer was the replacement of oxygen in the respiratory cell chemistry by the fermentation of sugar. The growth of cancer cells is initiated by a fermentation process, which can be triggered only in the absence of oxygen at the cell level. What Warburg was describing was a classic picture of acidic conditions. Just like overworked muscle cells manufacture lactic acid by-products as waste, cancerous cells spill lactic acid and other acidic compounds causing acid pH.

After we just saw how important sulfur is in human health and how useful a basic chemical like sodium thiosulfate can be, we now get a crash course in the power of sodium bicarbonate and the act of instantly turning cancer cells alkaline. Might as well shoot a guided cruise missile at them - so effective, safe, quick and precise is sodium bicarbonate, inexpensive as well. Just a few pennies a day of it will keep cancer further away, keeping it at arms length from ourselves, patients and loved ones. It is something we can use to treat our water with as well, excellent to put in distilled or reverse osmosis water or any water for that matter.

A true understanding of cancer is impossible without understanding why some tissues in the body are deficient in oxygen and therefore prone to cancer. Cancerous tissues are acidic, whereas healthy tissues are alkaline. Water (H<sub>2</sub>O) decomposes into H<sup>+</sup> and OH<sup>-</sup>. When a solution contains more H<sup>+</sup> than OH<sup>-</sup> then it is said to be acid. When it contains more OH<sup>-</sup> than H<sup>+</sup> then it is said to be alkaline. When oxygen enters an acid solution it can combine with H<sup>+</sup> ions to form water. Oxygen helps to neutralize the acid, while at the same time the acid prevents oxygen from reaching the tissues that need it. Acidic tissues are devoid of free oxygen. An alkaline solution is just the reverse. Two hydroxyl ions (OH<sup>-</sup>) can combine to produce one water molecule and one oxygen atom. In other words, an alkaline solution can provide oxygen to the tissues.

*The pH scale goes from 0 to 14, with 7 being neutral. Below 7 is acid and above 7 is alkaline. The blood, lymph and cerebral spinal fluid in the human body are designed to be slightly alkaline at a pH of 7.4.*

At a pH slightly above 7.4 cancer cells become dormant and at pH 8.5 cancer cells will die while healthy cells will live. This has given rise to a variety of treatments based on increasing the alkalinity of the tissues such as vegetarian diet, the drinking of fresh fruit and vegetable juices, and dietary supplementation with alkaline minerals such as calcium, potassium, magnesium, cesium and rubidium. But nothing can compare to the instant alkalizing power of sodium bicarbonate for safe and effective treatment of cancer.

Like magnesium chloride or sulfates are excellent emergency medicines, basic chemicals, nutritional in nature, sodium bicarbonate is a nutritional medicine meaning it cannot and will not end up controlled by CODEX. To control bicarbonate they would have to demand mothers stop making cake with it. **We might thus identify sodium bicarbonate as an emergency medicine for cancer** with the above supporting approaches working on broader levels to help overall physiology change to a degree where body chemistry is unfavorable for new cancer growth.

Cancer seems to grow slowly in a highly acid environment (because the acids cause it to partially destroy itself) and may actually grow more quickly as your body becomes more alkaline prior to reaching the healthy pH slightly above 7.4 where the cancer becomes dormant. Therefore it is important to get pH above 7.4 as quickly. Once one has achieved a pH above 7.4, it is useful to monitor saliva pH regularly to ensure that the body remains sufficiently alkaline.

*Earlier and more frequent use of sodium bicarbonate was associated  
with higher early resuscitability rates and with better long-term neurological outcome. Sodium bicarbonate is  
beneficial during CPR.<sup>v</sup>*



“The therapeutic treatment of bicarbonate salts can be administered orally, through aerosol, intravenously and through catheter for direct targeting of tumors.” All of Dr. Tullio Simoncini’s treatments with sodium bicarbonate are directed as specifically as possible to the organs involved, for example, vaginally as well as abdominally into the peritoneal space for cervical cancer, through the hepatic artery for liver cancer in order to get the solution as close to the affected area as possible. Sodium bicarbonate administered orally, via aerosol or intravenously can achieve positive results only in some tumours, while others – such as the serious ones of the brain or the bones - remain unaffected by the treatment. Dr. Savanini, with the help of interventionist radiologists was able to reach those areas of the body that had previously been inaccessible. This was achieved through positioning appropriate catheters either in cavities for peritoneum and pleura, or in arteries to reach other organs.<sup>vi</sup>

*The most effective measure to treat RT-induced mucositis in patients with head and neck cancer is frequent oral rinsing with a sodium bicarbonate rinse, to reduce the amount of oral microbial flora.<sup>vii</sup>*

**Case two:** A nine-year-old child is hospitalised and diagnosed with Ewing’s Sarcoma on the right humerus. Despite several chemotherapy cycles surgery on removed the humeral bone. Growth of three tumor masses continued despite continued efforts to stop progression. Sodium bicarbonate salts treatment were then started administered by catheter into the right sub-clavian artery in order to administer the salts (phlebotomy of 500 cc at five per cent) directly on the tumoral masses. Of the 3 masses shown by the scographic scan of May 7, 2001, whose size is respectively

- a. 6,5 cm
- b. 4,4 cm
- c. 2,4 cm

After the sodium bicarbonate salts treatment only one tumor was left, with a size of only 1.5 cm, which is most likely residual scarring, as shown by the echography of September 10, 2001.

Sodium bicarbonate injection is also indicated in the treatment of metabolic acidosis which may occur in severe renal disease, uncontrolled diabetes, and circulatory insufficiency due to shock or severe dehydration, extracorporeal circulation of blood, cardiac arrest and severe primary lactic acidosis. Sodium bicarbonate is further indicated in the treatment of drug intoxications, including barbiturates. Sodium carbonate has been found effective in treating poisoning or overdose from many chemicals and pharmaceutical drugs by **negating the cardiotoxic and neurotoxic effects.**<sup>viii</sup>

*Sodium bicarbonate is useful in treating neurological disorders in children.*

Knowledge of sodium bicarbonate is important for parents because the rate of childhood cancer is growing exponentially. But parents who resist the radiation burning and the cutting and the lethal chemicals are regularly hauled before the courts only to have their children taken away from them. Oncologists have been increasingly resorting to the justice system to have children made ward of courts that then turn them over to medical maniacs who can only be described as medical terrorists, fanatics who desperately need, for some criminally insane reason, to poison young children.

*An extremely simple therapy used by physicians who treat autism is to supply a mild antidote that neutralizes the excess acids. The most convenient product is a nonprescription drug called AlkaSeltzer Gold™. Do not use any other kind of AlkaSeltzer™. AlkaSeltzer Gold™ is simply a very safe product (sodium and potassium bicarbonate) that helps to neutralize excess acids of any kind.*

*Dr. William Shaw*

Biological Treatments for Autism and PDD

One mother wrote, “It worked so well for both of my children that the die-off was an uneventful experience, even though they both had very high levels of yeast.” The restoring of acid/alkaline balance also relieves many allergies. “These children also had grave disturbances in electrolyte chemistry, and tended to be acidotic (low CO). The data that unfolded was fascinating and clearly earmarked the acidosis and hypoxic state (low serum bicarbonate = low O<sub>2</sub> levels). Potassium bicarbonate, sodium bicarbonate, magnesium carbonate and the like were used. Now we began to understand why so many children responded to Buffered C (potassium bicarbonate, calcium carbonate, magnesium carbonate), and others needed a more specific buffer (in some children for example niacin was grossly depleted and they required niacin bicarbonate),” wrote Patricia Kane.

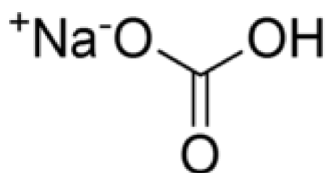
*The acid/alkaline balance is one of the most overlooked aspects of health, though many have written much about it. In general, the American public is heavily acid, excepting vegetarians.*

**Case three:** A 62-year-old patient undergoes surgery in December 1998 for endometrial adenocarcinoma, followed by successive cycles of radiotherapy and anti-hormone therapy. Following the thickening of the peritoneum and the growth of several lymph nodes due to carcinosis; from the clinical point of view, the patient’s condition decayed with the presence of exhaustion, general swelling, intestinal meteorism, irregularity of evacuation, steady feeling of heaviness and blood pressure instability. Treatment with a 5% sodium bicarbonate solution, administered alternately thru an endoperitoneal catheter and via IV showed rapid improvement to a normal condition of health. A final CAT scan confirms the regression of the peritoneal carcinosis and a stabilisation of the size of the lymph nodes when compared to the preceding year.

*The kidneys are usually the first organs to show chemical damage upon uranium exposure, military manuals suggest doses or infusions of sodium bicarbonate to help alkalize the urine if this happens. This makes the uranyl ion less kidney-toxic and promotes excretion of the nontoxic uranium-carbonate complex. The oral administration of sodium bicarbonate diminishes the severity of the changes produced by uranium in the kidneys.<sup>ix</sup>*

**Case four:** A 40-year-old patient underwent surgical intervention (left radical mastectomy) for mammarian carcinoma seven months earlier. After three months of chemotherapy, the patient is affected by: “diffused pulmonary and hepatic metastasis; bone metastasis particularly to the fifth and sixth lumbar vertebrae, with invasion and compression of the medullar channel, which is causing extreme pain which makes the patient unresponsive to any treatment.” All pain suppressant drugs – morphine included – are totally ineffective and the patient is totally prostrate even unable to sleep. Believing that fungal colonies amassed in the medullar channel will respond to administration of sodium bicarbonate salts, lumbar injections are begun.

Dr Tullio Simoncini recounts: “As I administer it by slowly injecting 50 cc of sodium bicarbonate solution at 8.4 %, the patient tosses and with a thread of a voice confesses to me that she has slept only two hours in the last week. Exhausted, she whispers to me: “If only I could sleep half an hour tonight.” But the day after, she calls me on the phone and says: “I have slept all night”. After two more lumbar injections of the bicarbonate salts in the next month, the pain disappeared completely. Magnetic Resonance imaging reports performed before and after treatment were defined by hospital head of the radiology department as “shocking.”



Sodium bicarbonate is the chemical compound with the formula NaHCO<sub>3</sub>. Sodium bicarbonate (baking soda) is commonly used as an antacid for short-term relief of stomach upset, to correct acidosis in kidney disorders, to make the urine alkaline during bladder infections and to minimize uric acid crystallization during gout treatment. Prescription sodium bicarbonate products are given by injection to treat metabolic acidosis and some drug intoxications. Sodium bicarbonate is available as a nonprescription medical as well as a general house hold item. It is also used with other non-prescription drugs for short-term treatment of various conditions to treat anything from fever to moderate pain.

*Sodium bicarbonate possesses the property of absorbing heavy metals, dioxins and furans. Comparison of cancer tissue with healthy tissue from the same person shows that the cancer tissue has a much higher concentration of toxic chemicals, pesticides, etc.*

Sodium bicarbonate neutralizes acids present in gases (in particular hydrochloric acid, sulphur dioxide, hydrofluoric acid) to form sodium salts (sodium chloride, sodium sulphate, sodium fluoride, sodium carbonate), which are all known as Residual Sodium Chemicals. Sodium bicarbonate can be made into a paste salve with vinegar, it relieves burning from bug stings (particularly bee stings), poison ivy, nettles, and sunburn. It is used as an antacid to treat acid indigestion and heartburn. Mixed with water in a 10% solution can soften earwax for removal.

*Substituting a sodium bicarbonate solution for saline infusion prior to administration of radiocontrast material seems to reduce the incidence of nephropathy.<sup>x</sup>*

*Dr. Thomas P. Kennedy*  
American Medical Association

Because sodium bicarbonate has long been known and is widely used, it has many other names including sodium hydrogen carbonate, sodium bicarb, baking soda, bread soda, cooking soda, bicarb soda, saleratus or bicarbonate of soda. It is soluble in water. This white solid is crystalline but often appears as a fine powder. It has a slight alkaline taste resembling that of sodium carbonate. It is a component of the mineral natron and is found dissolved in many mineral springs. It is also produced artificially. World wide production is on the scale of 100,000 ton/year. Sodium bicarbonate is primarily used in cooking (baking) where it reacts with other components to release carbon dioxide, that helps dough "rise."

It is commonly used to increase the pH and total alkalinity of the water for pools and spas. Sodium bicarbonate can be added as a simple solution for restoring the pH balance of water that has a high level of chlorine. It is sometimes used in septic tanks to control pH and bacteria.

*Sodium bicarbonate-rich mineral water in conjunction with a low-salt diet may have a beneficial effect on calcium homeostasis.<sup>xi</sup>*

Distilled water is not safe, it lacks bicarbonates and minerals and yes, it is acid forming to the body. Yet it is an excellent aid in detoxification and chelation for it purity pulls on toxicities in the body. Part of the reason why our body is acid is that it lacks enough bicarbonate necessary to neutralize the acid. Whenever the water lacks the proper bicarbonates to neutralize the water in distilled water your body basically becomes acid. Long term acidity causes acid blood, which is like acid rain, causes the calcium from the bones to be leached out and as a result, the tissues and organ have too much of calcium clogging the system. Therefore distilled water is generally not recommended as a regular drinking water, since most of our body usually receives bicarbonates from the water we drink than from the food we eat. But we can easily treat distilled water by adding bicarbonate and magnesium.

*pH of the blood is the most important factor to determine the state of the microorganisms in the blood.*

The native chemical and physical properties of sodium bicarbonate account for its wide range of applications, including cleaning, deodorizing, buffering, and fire extinguishing. Sodium bicarbonate neutralizes odors chemically, rather than masking or absorbing them. Consequently, it is used in bath salts and deodorant body powders. Sodium bicarbonate tends to maintain a pH of 8.1 (7 is neutral) even when acids, which lower pH, or bases, which raise pH, are added to the **solution**. Its ability to tabletize makes it a good effervescent ingredient in antacids and denture cleaning products. Sodium bicarbonate is also found in some anti-plaque mouthwash products and toothpaste.

Sodium Bicarbonate Injection, USP<sup>xii</sup> is indicated in the treatment of metabolic acidosis which may occur in severe renal disease, uncontrolled diabetes, circulatory insufficiency due to shock or severe dehydration, extracorporeal circulation of blood, cardiac arrest and severe primary lactic acidosis. Sodium bicarbonate is further indicated in the treatment of certain drug intoxications, including barbiturates (where dissociation of the barbiturateprotein complex is desired), in poisoning by salicylates or methyl alcohol and in hemolytic reactions

requiring alkalization of the urine to diminish nephrotoxicity of blood pigments. Sodium bicarbonate also is indicated in severe diarrhea which is often accompanied by a significant loss of bicarbonate.

Vigorous bicarbonate therapy is required in any form of metabolic acidosis where a rapid increase in plasma total CO<sub>2</sub> content is crucial † e.g. cardiac arrest, circulatory insufficiency due to shock or severe dehydration , and in severe primary lactic acidosis or severe diabetic acidosis.

Sodium Bicarbonate Injection, USP is administered by the intravenous route. In cardiac arrest, a rapid intravenous dose of one to two 50 mL vials (44.6 to 100 mEq) may be given initially and continued at a rate of 50 mL (44.6 to 50 mEq) every 5 to 10 minutes if necessary (as indicated by arterial pH and blood gas monitoring) to reverse the acidosis. Caution should be observed in emergencies where very rapid infusion of large quantities of bicarbonate is indicated. Bicarbonate solutions are hypertonic and may produce an undesirable rise in plasma sodium concentration in the process of correcting the metabolic acidosis. In cardiac arrest, however, the risks from acidosis exceed those of hypernatremia.

In the current system, if a promising compound can't be patented, it is highly unlikely ever to make it to market — no matter how well it performs in the laboratory or in emergency room situations. In 2004, Johns Hopkins researchers discovered that an off-the-shelf compound called **3-bromopyruvate** could arrest the growth of liver cancer in rats. The results were dramatic; moreover, the investigators estimated that the cost to treat patients would be around 70 cents per day. Yet, three years later, no major drug company has shown interest in developing this drug for human use.

Early this year, another readily available industrial chemical, **dichloroacetate**, was found by researchers at the University of Alberta to shrink tumors in laboratory animals by up to 75 percent. However dichloroacetate is not patentable. The hormone **melatonin**,<sup>xiii</sup> sold as an inexpensive food supplement in the United States, has repeatedly been shown to slow the growth of various cancers when used in conjunction with conventional treatments. Dr. Paolo Lissoni, another Italian oncologist has written many articles about this hormone and conducted numerous clinical trials. But he has despaired over the pharmaceutical industry's total lack of interest in his treatment approach.

We need a new approach to fight cancer, one that will work safely and effectively since the majority of us are now destined to have to suffer through cancer at one point or another in our lives. The situation in the field of oncology is horrendous and in the area of childhood oncology they have earned their place in the book ***The Terror of Pediatric Medicine***, (which one can download as a free e-book.)

Most people today cringe at the idea of finding a cancer then slashing, burning and poisoning it to smithereens. Most would agree that the mainstream cancer approach offers only marginal benefits at best, and providers push screening and aggressive treatment in part because they have nothing else to give, and also because it's very profitable.

*If the body's cellular metabolism and pH is  
balanced it is susceptible to little illness or disease.*

Since 1971, when President Nixon declared war on cancer, the budget of the National Cancer Institute has increased to \$4.8 billion from half a billion and cancer rates are still going up. For most of the past half-century, medical treatment of invasive tumors like those of the breast and colon has relied mainly on drugs, radiation or both, in effect carpet-bombing the DNA of cancer cells. **These highly toxic treatments do not address the root causes of cancer.**

*The great variety of cancers must reflect a fundamental  
mechanism by which the disease arises, one  
that has not been so clearly apparent until now.*

Though allopathic medicine already uses sodium bicarbonate it will not any day soon turn to its own arsenal of already available safe and inexpensive medications like sodium bicarbonate or magnesium chloride. The medical industrial complex is not willing to change its views on cancer so patients will need to quietly ask their doctors for intravenous bicarbonate without specifying it as a substance they want to use to cure their cancer. It will be easier to

find someone if one approaches with a need to treat acidic conditions than the actual cancer. Few doctors are willing to risk their licenses so it is better not to put them in an uncomfortable situation that they cannot control.

*The closer the pH is to 7.35 - 7.45, the higher our level of health and well being and our ability to resist states of disease.*

Sadly this does not address the need for the use of catheters which target tumors more directly thus pushing us toward a more complete protocol that will target cancer in a more general and comprehensive way. This needs to be done anyway because killing the tumor with a rush of alkalinity that provokes an oxygen rush into the cells will not prevent the condition from reoccurring. Though we can think that acidity is a basic cause of cancer a more basic cause is addressed when we look at what leads to the acidic conditions that are so prevalent in our bodies today.

*Sodium bicarbonate is an anti-fungin substance that is very diffusible and thus very effective.*

Dr Tullio Simoncini says, “It is useful to consider the extreme sensitivity of fungi to saline and electrolytic solutions. These solutions, because of their extreme capacity for diffusion, are able to reach all the myceliar biological expressions, including the most infinitesimal ones. **Salts and bicarbonates, by making the “terrain” completely inorganic, eliminates the slightest organic fonts that fungi could use for nourishment.** In this context, sodium bicarbonate, which is currently used in children’s oral candidoses, appears to be a simple and handy weapon capable of uprooting, inhibiting, or attenuating any neoplastic formation wherever it is possible to easily apply it.”

*Cancer is actually a four-letter word — ACID, especially lactic acid as a waste product due to the low oxygen level and waste products of yeast and fungus.*

For centuries, medicated baths have been one of the first lines of treatment for psoriasis. Even today, with sophisticated immunosuppressive treatments available, Dead Sea salts and spa waters are recognized to be beneficial in the management of psoriatic patients

To assess statistically the efficacy of sodium bicarbonate baths in psoriasis patients, thirty-one patients with mild-moderate psoriasis were studied. Almost all patients who used  $\text{NaHCO}_3^-$  reported a statistically valuable improvement.  $\text{NaHCO}_3^-$  baths reduced itchiness and irritation; in general, the patients themselves recognized a beneficial impact on their psoriasis, so much so that they have continued to bathe in  $\text{NaHCO}_3^-$  even after the end of the study.<sup>xiv</sup>

“Sodium bicarbonate therapy is harmless, fast and effective because it is extremely diffusible. A therapy with bicarbonate for cancer should be set up with strong dosage, continuously, and with pauseless cycles in a destruction work which should proceed from the beginning to the end without interruption for at least 7-8 days. In general a mass of 2-3-4 centimetres will begin to consistently regress from the third to the fourth day, and collapses from the fourth to the fifth. Generally speaking, the maximum limit of the dosage that can be administered in a session gravitates around 500 cc of sodium bicarbonate at five per cent solution, with the possibility of increasing or decreasing the dosage by 20 per cent in function of the body mass of the individual to be treated and in the presence of multiple localisations upon which to apportion a greater quantity of salts,” instructs Dr Simoncini.

In the early stages of acidic pH in the body’s tissues, the warning symptoms are mild. These include such things as skin eruptions, headaches, allergies, colds, flu and sinus problems. These symptoms are frequently treated (manipulated) with antibiotic drugs and suppressive medications. The longer and the deeper we become acidic the more our illness takes hold so it’s best to fight acidic conditions early on and in every presenting clinical situation. Certainly a highly toxic drug like anti viral Tamiflu won’t do a fraction of the job sodium bicarbonate will do especially if it’s combined with magnesium chloride and iodine as well as high levels of vitamin C.

In late stages of acidic pH we need to turn to the most alkaline minerals to increase our throw weight of alkalinity into cancer cells. Mass spectrographic and isotope studies have shown that potassium, rubidium, and especially cesium are most efficiently taken up by cancer cells. This uptake was enhanced by Vitamins A and C as well as salts of zinc and selenium. The quantity of cesium taken up was sufficient to raise the cell to the 8 pH range.

## Combining ph shift with Heat

In the opening paragraph of this chapter we mentioned killing cancer cells with lasers, with heat.

*Give me a chance to create fever  
and I will cure any disease.*

*Parmenides*

2,000 years ago

Fever is one of the body's own defensive and healing forces, created and sustained for the deliberate purpose of restoring health. The high temperature speeds up metabolism, inhibits the growth of the invading virus or bacteria, and literally burns the enemy with heat. Fever is an effective protective and healing measure not only against colds and simple infections, but against such serious diseases as polio and cancer.

The idea of destroying cancer with heat is certainly not new and has been widely accepted for a very long time, but has had very limited applications because it was finally concluded that, in order to ensure destruction of the cancerous growth, it is necessary to reach a temperature deadly to healthy cells as well. Many attempts have been made to bypass this problem and some methodologies have been developed like: localized hyperthermia, laserthermia, radio-fractionated hyperthermia and TTT. But they all have limitations and cannot complete the job, because they cannot achieve total necrosis and, unless the entire mass of neoplastic tissue is destroyed, the cancer will continue to grow. But:

### **Hyperthermia gives cancer a hard time:**

1. removing accumulations of stored toxic chemicals that cause cancer
2. improving circulation so that tissues are both nourished with oxygen and flushed of acidic metabolic wastes
3. weakening or even killing cancer cells that have a lower tolerance for heat than healthy cells.

Thus we should easily conclude that far-infrared sauna treatments are going to help a cancer sufferer no matter which way we slice the treatment protocol. But for a more targeted heat to kill cancer tumors we have Dr Antonella Carpenter who has perfected the treatment of cancer cells with heat through her use of lasers. She generates the death of the cells by suffocation via heat. Dr Carpenter, a physicist with a clinic in Little Rock, says, "As long as the entire neoplastic mass is exposed to the laser light, for the correct amount of time, the success is complete and the results, as well as the healing stages, are always the same." Her cancer treatment is called Light Induced Enhanced Selective Hyperthermia, which in itself pretty much summarizes all the characteristics of this new therapy. With this form of treatment cancer cells reach a deadly temperature level quickly and are subject to irreversible damage and therefore die, either immediately or within 48 hours.



<sup>i</sup> <http://candida-international.blogspot.com/2007/03/is-cancer-caused-by-candida-fungus.html>

<sup>ii</sup> Enhancement of chemotherapy by manipulation of tumour pH. Raghunand N, He X, van Sluis R, Mahoney B, Baggett B, Taylor CW, Paine-Murrieta G, Roe D, Bhujwala ZM, Gillies RJ. Arizona Cancer Center, Tucson 85724-5024, USA.

<sup>iii</sup> Enhancement of chemotherapy by manipulation of tumour pH. Raghunand N, He X, van Sluis R, Mahoney B, Baggett B, Taylor CW, Paine-Murrieta G, Roe D, Bhujwala ZM, Gillies RJ. Arizona Cancer Center.

<sup>iv</sup> [http://www.urotoday.com/38/browse\\_categories/renal\\_cancer/sodium\\_bicarbonate\\_infusion\\_found\\_to\\_reduce\\_risk\\_of\\_contrastinduced\\_nephropathy.html](http://www.urotoday.com/38/browse_categories/renal_cancer/sodium_bicarbonate_infusion_found_to_reduce_risk_of_contrastinduced_nephropathy.html)

<sup>v</sup> Resuscitation outcome in emergency medical systems with increased usage of sodium bicarbonate during cardiopulmonary resuscitation. Bar, Joseph G et al; Acta Anaesthesiol Scand. 2005 Jan;49(1):6 Entrez PubMed

<sup>vi</sup> With the aim to reach the maximum effect, sodium bicarbonate should be administered directly on the neoplastic masses which are susceptible of regression only by destroying the fungal colonies. This is possible by the selective arteriography (the visualisation through instrumentation of specific arteries) and by the positioning of the arterial port-a-cath (these devices are small basins used to join the catheter). These methods allow the positioning of a small catheter directly in the artery that nourishes the neoplastic mass, allowing the administration of high dosages of sodium bicarbonate in the deepest recesses of the organism. With this method, it is possible to reach almost all organs; they can be treated and can benefit from a therapy with bicarbonate salts which is harmless, fast, and effective – with only the exception of some bone areas such as vertebrae and ribs, where the scarce arterial irrigation does not allow sufficient dosage to reach the targets. Selective arteriography therefore represents a very powerful weapon against fungi that can always be used against neoplasias, firstly because it is painless and leaves no after effects, secondly because the risks are very low.

<sup>vii</sup> Oncol Nurs Forum. 2002 Aug;29(7):1063-80. A research review of the current treatments for radiation-induced oral mucositis in patients with head and neck cancer. Shih A, Miaskowski C, Dodd MJ, Stotts NA, MacPhail

<sup>viii</sup> These include, Benzotropines (valium) cyclic antidepressants (amitriptyline), organophosphates, methanol (Methyl alcohol is a cheap and potent adulterant of illicit liquors) Diphenhydramine (Benedryl), Beta blockers (propranolol) Barbiturates, and Salicylates (Aspirin). Poisoning by drugs that block voltage-gated sodium channels produces intraventricular conduction defects, myocardial depression, bradycardia, and ventricular arrhythmias. Human and animal reports suggest that hypertonic sodium bicarbonate may be effective therapy for numerous agents possessing sodium channel blocking properties, including cocaine, quinidine, procainamide, flecainide, mexiletine, bupivacaine, and others.

<sup>ix</sup> A study of the acidosis, blood urea, and plasma chlorides in uraemic nephritis in the dog, and the protective action of sodium bicarbonate. The Journal of Experimental Medicine, Vol 25, 693-719, Copyright, 1917, by The Rockefeller Institute for Medical Research New York <http://www.jem.org/cgi/content/abstract/25/5/693>

<sup>x</sup> JAMA 2004;291:2328-2334,2376-2377.

[http://www.urotoday.com/56/browse\\_categories/renal\\_transplantation\\_vascular\\_disease/sodium\\_bicarbonate\\_may\\_prevent\\_radiocontrastinduced\\_renal\\_injury.html](http://www.urotoday.com/56/browse_categories/renal_transplantation_vascular_disease/sodium_bicarbonate_may_prevent_radiocontrastinduced_renal_injury.html)

<sup>xi</sup> Effect of sodium chloride- and sodium bicarbonate-rich mineral water on blood pressure and metabolic parameters in elderly normotensive individuals: a randomized double-blind crossover trial. J Hypertens. 1996 Jan;14(1):131-5. Department of Internal Medicine, Universitätsklinikum Benjamin Franklin, Free University of Berlin, Germany.

<sup>xii</sup> All U.S.P. grades meet the *United States Pharmacopoeia and Food Chemicals Codex* specifications for use in pharmaceutical and food applications. In addition, food grade sodium bicarbonate meets the requirements specified by the U.S. Food and Drug Administration as a substance that is *Generally Recognized as Safe* (GRAS).

<sup>xiii</sup> One of the most important supplements for the breast cancer patient is high doses of the hormone melatonin at bedtime. Melatonin blocks estrogen receptors somewhat similarly to the drug tamoxifen without the long-term side effects of tamoxifen. Further, when melatonin and tamoxifen are combined, synergistic benefits occur. Melatonin can be safely taken for an indefinite period of time. The suggested dose of melatonin for breast cancer patients is 3 mg to 50 mg at bedtime. Caution: Although melatonin is strongly recommended for breast cancer patients, interleukin-2 (IL-2), which often is combined with melatonin, should be avoided by breast cancer patients. IL-2 may promote breast cancer cell division. <http://www.lef.org/magazine/mag99/jan99-protocols.html>

<sup>xiv</sup> Old fashioned sodium bicarbonate baths for the treatment of psoriasis in the era of futuristic biologics: An old ally to be rescued; Journal of Dermatological Treatment; Volume 16, Number 1/February 2005

<sup>xv</sup> "A mass spectrographic analysis of cancer cells showed that the cell membrane readily attached cesium, rubidium and potassium, and transmitted these elements with their associated molecules into the cancer cell. In contrast cancer membranes did not transmit sodium, magnesium, and calcium into the cell: the amount of calcium within a cancer cell is only about 1% of that for normal cells. Potassium transports glucose into the cell. Calcium and magnesium transport oxygen into the cell. As a consequence of the above, oxygen cannot enter cancer cells so the glucose which is normally burned to carbon dioxide and water undergoes fermentation to form lactic acid within the cell. This anaerobic condition was pointed out by Warburg, as early as 1924. Potassium, and especially rubidium and cesium are the most basic of the elements. When they are taken up by the cancer cells they will thus raise the pH of the cells. Since they are very strong bases as compared to the weak lactic acid it is possible that the pH will be raised to values in the 8.5 to 9 range. In this range the life of the cancer cell is short, being a matter of days at the most. The dead cancer cells are then absorbed by the body fluids and eventually eliminated from the system." - Dr. Brewer <http://www.mwt.net/~drbrewer/highpH.htm>